

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Jim Neal/Bob Williams

GENERAL INFORMATION:

Name: Florida Tile Industries, Incorporated  
Address: P.O. Box 447, Lakeland, Florida 33802  
Date application received: December 15, 1997  
SIC/Source description: 3253  
AFS(10-digit) Plant ID: 21-005-00008  
EIS #: 102-0060-0008  
Application log number: F455  
Permit number: V-99-020

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other

MISCELLANEOUS:

Acid rain source  
 Source subject to 112(r)  
 Source applied for federally enforceable emissions cap  
 Source provided terms for alternative operating scenarios  
 Source subject to a MACT standard  
 Source requested case-by-case 112(g) or (j) determination  
 Application proposes new control technology  
 Certified by responsible official  
 Diagrams or drawings included  
 Confidential business information (CBI) submitted in application  
 Pollution Prevention Measures  
 Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	163.14	163.14
SO <sub>2</sub>	0.21	0.21
NO <sub>x</sub>	42.42	42.42
CO	8.90	8.90
VOC	1.65	1.65
LEAD	0.000005	0.000005
HAP $\geq$ 10 tpy (by CAS)		
7664393- Hydrogen Fluoride	44.92	44.92

SOURCE PROCESS DESCRIPTION:

This source manufactures ceramic tiles by combining clay, talc, pyrax, and vansil. The raw materials are stored in six silos that are loaded pneumatically from railcars. Of the six silos, two hold talc, two hold clay, one holds pyrax, and one holds vansil. Each generates particulate matter when loaded and the emissions are controlled by separate baghouses with efficiencies above 98%. The materials are conveyed to the body preparation area. Silo systems #1, #3, and #6 consist of a silo, gyrator screen, weigh hopper, and screw conveyer. Silo system #2 consists of a silo, 2 gyrator screens, 2 weight hoppers, a belt conveyer, and a screw conveyer. Silo system #4 consists of a silo, 2 gyrator screens, 2 weigh hoppers, a belt conveyer, and a screw conveyer. Silo system #5 consists of a silo, gyrator screen, and weigh hopper. The raw material batching station consists of a six-belt conveyer system; fast fire and traditional body mixer systems; fast fire and traditional body rework systems; and fast fire and traditional body pneumatic press feeder systems. Once the raw materials are sieved by one of the screens, it is mixed with water in one of the Eirich mixers and any damaged, greenware tiles are added from the two rework systems. Once mixed, the clays are stored in two wet storage units until processed into tiles.

Three ball mills are used to mix the glaze for the tiles. The weighed, raw materials to make the glaze are added to one of the three large ball mills where the ingredients are ground, screened, and mixed with water. Once prepared, the glaze is transferred into a storage container. When the glaze is needed on a coating line, it is agitated and conveyed to the line. A small ball mill is used to mix and test different glazes.

The mixed clays are transferred to tile extrusion through one of the pneumatic press feeders. Five lines extrude the tiles. A typical tile process line consists of tile press(s), tile brush(es), glaze coater and kiln(s). The presses press and cut the raw materials into tiles. Line brushes are used to remove any particles on the tiles before they are coated with glaze.

Cleaned tiles are conveyed to glaze preparation where one or more glazes may be added to the tile through various coating operations. Glazed tiles are fired in one of five kilns. The kilns are direct fired and use natural gas. One kiln is used to cure decals placed on some of the tiles, and has VOC emissions due to the fixative used to place the decals on the tiles. Emissions include the products of combustion plus particulate and HF emissions from the body of the tile.